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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,777	02/27/2007	Haavard Aakre	2006_1247A	4647

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WENDEROTH, LIND & PONACK, L.L.P.
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EXAMINER

FULLER, ROBERT EDWARD

ART UNIT	PAPER NUMBER
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3676

NOTIFICATION DATE	DELIVERY MODE
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03/03/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/588,777	Applicant(s) AAKRE, HAAVARD	
	Examiner ROBERT E. FULLER	Art Unit 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-27 and 38 is/are allowed.
- 6) ☒ Claim(s) 28,29,33 and 35-37 is/are rejected.
- 7) ☒ Claim(s) 30-32 and 34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's submission, filed December 23, 2009, has been carefully considered. Examiner has withdrawn the objections to the claims and to the specification set forth in the previous Office Action, but has added new claim objections. Examiner maintains the objection to the drawings. Some of the new claims stand rejected under the Kryuchkov reference.

Drawings

2. The drawings are objected to because the cross-hatching added to Figure 1 is not consistent with liquids according to the standards set forth in MPEP 608.02 IX. The proper cross-hatching for liquid is horizontal dashes. Also, the current cross-hatching obscures the word "Solvent" in Fig. 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

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not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 24 and 28 are objected to because of the following informalities: The last phrase of these claims is redundant. Examiner suggests deleting the phrase "in relation to the osmotic cell". The claim already states that it is the "osmotic pressure difference between the solution in the osmotic cell and the external fluid flow or fluid reservoir" that drives the actuator. Appropriate correction is required.

4. Claim 24 is objected to because of the following informalities: The phrase --or a fluid reservoir-- should be added after "the fluid flow" in line 5, in order to provide proper antecedent basis. Appropriate correction is required.

5. Claim 38 is objected to because of the following informalities: Claim 38 recites "a fluid flow *or* a fluid flow from a fluid reservoir". However, this limitation does not make sense. "A fluid flow from a fluid reservoir" is narrower than "a fluid flow". Therefore, it does not make sense to claim these two elements in the alternative. It appears that applicant means to simply claim "a fluid flow" since "a fluid flow from a reservoir" would fall under that umbrella. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 28 is rejected under 35 U.S.C. 102(b) as being anticipated by Kryuchkov (SU 969958 A, hereinafter '958).

With regard to claim 28, '958 discloses an actuator device (3, 4, 11) for controlling a fluid flow, the actuator device being adapted to be used with a drainage pipe (i.e. outlet pipe proximate numeral 18) for production of oil and/or gas in an oil and/or gas reservoir (i.e. the well shown in Fig. 1), the actuator device comprising: an osmotic cell (4) provided with a solution, wherein the osmotic cell is designed to be placed in a fluid reservoir (8) such that force and motion of the actuator device (3, 4, 11) are achieved for driving or adjusting an inflow control device (1) by utilizing an osmotic pressure difference between the solution in the osmotic cell and the fluid reservoir (8).

Note that the system of '958 is used with a water well, but is also capable of producing oil or gas.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. Claims 29, 33, and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over '958.

Kryuchkov does not explicitly state that the solution in the osmotic cell is a water/salt solution.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Kryuchkov's apparatus to have used a water/salt solution in the osmotic cell, since examiner hereby takes Official Notice that it was notoriously well known in the art to use water and salt in an osmotic cell application, and it also would have been obvious to use salt blocks, as employing salt particles, pellets, or blocks was also well known (see US 5,151,093 to Theeuwes et al., column 12, lines 10-26, which discusses different solutions useful in osmotically-driven devices, and also mentions the typical physical forms the solutes can take).

Allowable Subject Matter

10. Claims 24-27 and 38 are allowed.
11. Claims 30-32 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

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12. Applicant's arguments filed December 23, 2009 have been fully considered but they are not persuasive. Applicant has argued, with respect to claim 28, that '958 discloses a positive displacement pump, rather than an "actuator" as required by claim 28. Examiner respectfully traverses. The actuator (elements 3, 4, and 11) disclosed by '958 provides the force and motion to drive a pump (1—see Abstract). This is what is required by claim 28.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT E. FULLER whose telephone number is (571)272-0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shane Bomar/
Primary Examiner, Art Unit 3676

2/24/2010
REF